



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

To: Marietta Echeverria, Acting Director
Registration Division
Office of Pesticide Programs

From: Eric Bohnenblust, Ph.D., Chief
Minor Use and Emergency Response Branch
Registration Division

Eric
Bohnenblust

Digitally signed by Eric
Bohnenblust
Date: 2022.07.19
11:42:06 -04'00'

Subject: Repeat Section 18 Emergency Exemption Request from Arkansas for use of Endigo ZC Insecticide (containing Lambda-Cyhalothrin and Thiamethoxam) in Rice to Control Rice Stinkbug (EE# 22AR02)

This is the **second** year that an emergency exemption request has been submitted for this use, and the Arkansas Department of Agriculture (ADA) obtained the use in 2021, first under a crisis exemption and then under an authorized specific exemption. The 2022 request is for the same use pattern as for the 2021 exemption but requests an increase in potentially treated acreage from 300,000 to 450,000 acres. The ADA reports that 13,840 acres of rice were treated under the 2021 exemption with no adverse effects observed. **For further details about the emergency and risk evaluations, the 2021 Decision Memorandum is attached.**

The ADA states that supply shortages of the effective registered alternatives (malathion and dinotefuran) that impacted the situation in 2021 have continued into 2022, due to production issues which arose during the COVID-19 pandemic. ADA provided supporting correspondence from several area suppliers as well as from the US Rice Association. Carbaryl is not suitable because importing countries have rejected multiple shipments of rice in recent years with carbaryl residues. This leaves the pyrethroids, lambda-cyhalothrin and zeta-cypermethrin, labeled for rice stink bug (RSB) control in rice. In 2021, ADA reported inadequate control and resistance developing to the pyrethroids. For 2022, ADA states that additional data suggests increased pyrethroid resistance in the current RSB populations, noting that RSB populations are very high in neighboring wheat crops. Additionally, for a large percentage of AR rice, wet weather delayed planting from April until late May and June. ADA states that late-planted rice consistently has higher populations of RSB, which are more difficult to control. Since the pyrethroids do not provide adequate control and supplies of suitable registered alternatives are insufficient, ADA states that the use of Endigo ZC is needed to prevent significant decreases in both yield and quality of rice from the RSB.

Agency Evaluation: All findings of the science reviews from 2021 (BEAD, HED, and EFED) continue to support the criteria for allowing an emergency exemption for this use for 2022. Since the primary contributing factor, supply shortages of alternative controls, was expected to be temporary, BEAD noted in 2021 that this situation was not eligible for recertification of the emergency in 2022. For 2022, BEAD found the situation meets the criteria for an emergency, due to inadequate supply of alternatives and the limited effectiveness of available materials. Previously established time-limited tolerances in rice commodities for thiamethoxam (and its metabolite, clothianidin) will support residues resulting from this use. Permanent tolerances established for the registered use of lambda-cyhalothrin (the other active ingredient in Endigo ZC) are also adequate to support residues resulting from this use.

Progress Toward Registration: The registrant continues to support this emergency exemption use, and a registration submission is currently under review at EPA. The PRIA date has been extended since the initial submission, to allow for full evaluation of thiamethoxam in connection with Registration Review. Therefore, progress towards registration is adequate.

Recommendation: The emergency need still exists for the requested use and there do not appear to be any outstanding risk data that might undermine the previous safety findings. If future emergency exemptions are sought for this use, these requests are not eligible for recertification of the emergency, and applicants must provide a status update on the availability of the alternative control products. Therefore, I recommend that the attached action be approved.